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18. A TAXONOMIC NOTE ON MUGGER SUBSPECIES (*CROCODYLUS PALUSTRIS*)

In Deraniyagala's (1936) description of the Sri Lankan subspecies of *Crocodylus palustris* (*C. p. kimbula*) he listed several features which, in his opinion, distinguished it from Indian *C. palustris*.

While examining data collected by C. A. Ross in 1974 on scalation of *C. palustris* specimens from several parts of India and our own captive stock of 1000 at Madras Crocodile Bank we found that the characters given as points of sub-specific differentiation between the Indian and Sri Lankan races of *C. palustris* are invalid. The small size of the sample of Indian specimens Deraniyagala looked at is probably to blame. Of the four characters given by Deraniyagala the only one which is presently a point of distinction is the tendency of some populations of Sri Lankan mugger to frequent saltwater (Whitaker 1979). However mugger were once common in the salt pans of Sind (McCann 1935) so even this feature is not unique to the Sri Lankan mugger. The assertion that the Sri Lankan mugger is more frequently known as a maneater than its northern counterpart could be due to confusion with the often sympatric *Crocodylus porosus*.

Taken one by one, the following are the characters given for *C.p. kimbula* by Deraniyagala, each one followed by our findings with mugger from Tamil Nadu, Karnataka and Uttar Pradesh.

- (a) Sri Lankan mugger has more transverse dorsal rows with six contiguous scutes than with four while seven is not uncommon and occasionally a row with eight.
- (aa) In our sample of sixteen (Table 1), twelve specimens had more transverse rows with six than four, three had rows with seven and two with eight.

TABLE 1  
DORSAL SCALE ROWS OF INDIAN *Crocodylus palustris*

		4	5	6	7	8
		scuted	scuted	scuted	scuted	scuted
		rows	rows	rows	rows	rows
Mettur Dam	..	9	4	6	..	..
"	..	9	2	7	..	..
"	..	7	1	8	..	2
"	..	7	1	10	..	..
Malabar	..	10	5	3	..	..
Ranganthitoo	..	8	1	10	..	..
"	..	7	3	8	..	..
"	..	9	3	4	..	..
"	..	7	2	9	..	..
"	..	7	1	10	..	..
"	..	7	2	8	..	1
"	..	7	1	8	2	..
"	..	7	1	8	2	..
"	..	6	1	10	1	..
"	..	7	2	8	..	..
Uttar Pradesh	..	3	4	6	..	..

MISCELLANEOUS NOTES

- (b) Dorsal scutes subequal in Sri Lankan mugger; only a few isolated ones enlarged; while in the Indian mugger there are 2 median longitudinal rows of conspicuously widened dorsal scutes.
- (bb) We found the median longitudinal rows of dorsal scales highly variable in the Indian sample, sometimes subequal, sometimes uniformly larger, smaller or equal in size to the other dorsals.
- (c) Ventral collar of 'twice as deep' scales in Sri Lankan mugger and none in Indian mugger.
- (cc) In all of the Indian specimens a collar of enlarged scales is present though often not conspicuous in juveniles.
- (d) Sri Lankan mugger not uncommon in saltwater.
- (dd) The mugger in India has been hunted out of most of its original habitat which certainly may have included salt pans and estuarine areas, as reported in Sind.

Conclusion :

The great variation in scalation of local populations of the wide ranging *C. palustris* does not support Deraniyagala's contention that the Sri Lankan race is a separate subspecies. Evidence is presented in Table 1.

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ROMULUS WHITAKER  
ZAHIDA WHITAKER

MADRAS CROCODILE BANK TRUST,  
C/O. MADRAS SNAKE PARK TRUST,  
MADRAS-600 022,  
February 23, 1982.

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19. THE DISTRIBUTION OF THE GHARIAL

Malcolm Smith (1931) gives the distribution of gharial as :

'The Indus, Ganges, Mahanadi and Brahmaputra Rivers and their tributaries and the Kaladan River, Arakan. Barton (1929) records a specimen shot at the mouth of the Maingtha, a tributary of the Sweli River, Upper Burma; it is the sole record from the Irrawaddy River system.'

Leaving aside the questionable occurrence in Burma, the gharial would appear to have a north Indian distribution in the Indo-Gangetic river systems and their tributaries. The occurrence in Mahanadi, and other rivers in Orissa (Singh and Bustard, in prepn.), appears somewhat anomalous.

During the course of a survey in Godavari River of Andhra Pradesh, information was